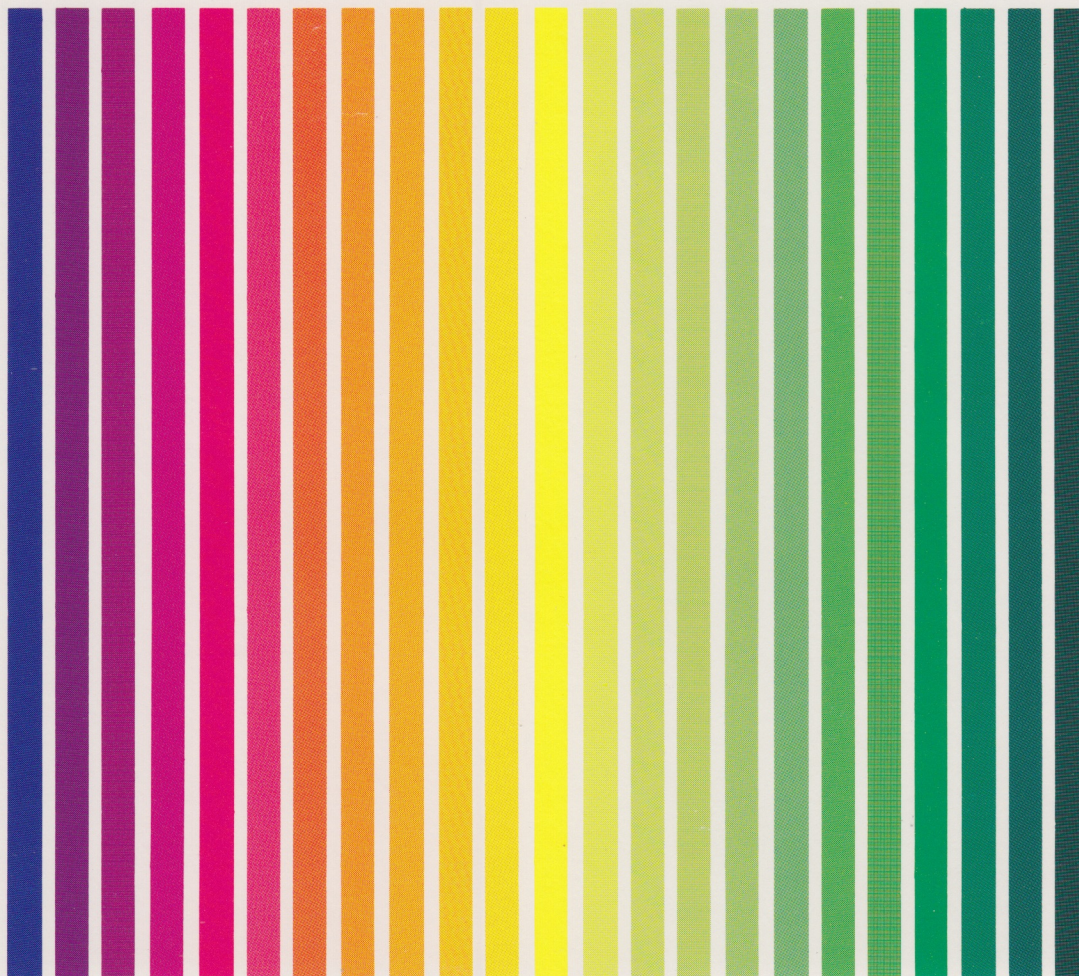


# APX ATARI® PROGRAM EXCHANGE



Elizabeth Chase MacRae

## **MANKALA**

A computerized version of the African  
stone-and-board game for 1-2 players (ages 8 and up)

Cassette: 16K (APX-10156)

Diskette: 16K (APX-20156)

User-Written Software for ATARI Home Computers



# MANKALA

by

Elizabeth Chase MacRae

Program and Manual Contents © 1982 Elizabeth Chase MacRae

Copyright notice. On receipt of this computer program and associated documentation (the software), the author grants you a nonexclusive license to execute the enclosed software. This software is copyrighted. You are prohibited from reproducing, translating, or distributing this software in any unauthorized manner.

## TRADEMARKS OF ATARI

The following are trademarks of Atari, Inc.

ATARI®  
ATARI 400™ Home Computer  
ATARI 800™ Home Computer  
ATARI 410™ Program Recorder  
ATARI 810™ Disk Drive  
ATARI 820™ 40-Column Printer  
ATARI 822™ Thermal Printer  
ATARI 825™ 80-Column Printer  
ATARI 830™ Acoustic Modem  
ATARI 850™ Interface Module

\*\*\*\*\*

Distributed by

The ATARI Program Exchange  
P. O. Box 427  
155 Moffett Park Drive, B-1  
Sunnyvale, CA 94086

To request an APX Software Catalog, write to the address above, or call toll-free:

800/538-1862 (outside California)  
800/672-1850 (within California)

Or call our Sales number, 408/745-5535.

\*\*\*\*\*



## INTRODUCTION

### OVERVIEW

The stone age has met the computer age! Mankala, an ancient African game traditionally played with stones on the ground or on a hand-carved board, is now available on your ATARI Home Computer. But the computerized MANKALA remains faithful to the original game's rules and format.

Two players can compete against each other or one player can challenge the computer at different levels of difficulty. Each player owns six small playing bins and one large home bin, which are arranged as two parallel sets. Start MANKALA with anywhere between three an eight stones per bin. Players take turns picking up all the stones in one of their playing bins and dropping one stone in each bin in a counterclockwise direction. They move the stones by using a Joystick Controller to position their marker over a bin and then pressing the red joystick button. MANKALA automatically picks up all the stones and drops them in the other bins. Each stone dropped into a home bin remains there permanently, and whenever the last stone in a turn lands in the player's home bin, the player takes another turn. The game ends when one player empties all the playing bins in his set, and the holder of more stones is the winner.

### REQUIRED ACCESSORIES

One ATARI Joystick Controller per player

Cassette version

16K RAM  
ATARI 410 Program Recorder

Diskette version

16K RAM  
ATARI 810 Disk Drive



## GETTING STARTED

### LOADING MANKALA INTO COMPUTER MEMORY

1. Remove any program cartridge from the cartridge slot of your computer.
2. In a one-player game, plug your Joystick Controller into the first (the leftmost) controller jack at the front of your computer console. In a two-player game, plug your Joystick Controller into the first and second (the two leftmost) controller jacks at the front of your computer console.
3. If you have the cassette version of MANKALA:
  - a. Have your computer turned OFF.
  - b. Insert the MANKALA cassette into the program recorder's cassette holder and press REWIND on the recorder until the tape rewinds completely. Then press PLAY to prepare the program recorder for loading the program.
  - c. Turn on the computer while holding down the START key.
  - d. When you hear a beep, release the START key and press the RETURN key. The program will load into computer memory. Turn on your TV set. The program will start automatically.

#### If you have the diskette version of MANKALA:

- a. Have your computer turned OFF.
- b. Turn on your disk drive.
- c. When the BUSY light goes out, open the disk drive door and insert the MANKALA diskette with the label in the lower right-hand corner nearest to you. (Use disk drive one if you have more than one drive.)
- d. Turn on your computer and your TV set. The program will load into computer memory and start automatically.

### THE FIRST DISPLAY SCREEN

The first display screen contains the word "MANKALA" and instructions to press the START or OPTION keys.



## PLAYING MANKALA

### SELECTING YOUR OPTIONS

One person can play MANKALA against the computer with four increasingly difficult levels of competition. Or, two players can compete. In the one-player version, press the OPTION key until you see the desired playing level on the screen.

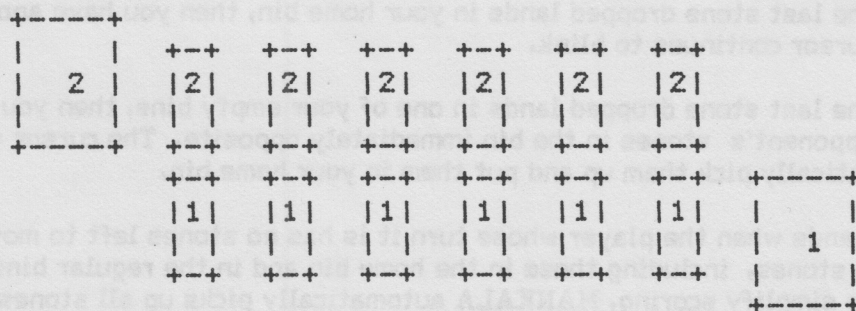
**WARNING:** At the higher levels of one-player competition, the computer will spend a noticeable amount of time planning its move. At level four, for example, you may have to wait up to 15 seconds for some moves.

After you set your options, press the START key to go on to the playing field.

If you do not press the START key within a minute, the computer will begin to play against itself, using randomly selected levels of skill.

### PLAYING FIELD

The playing field consists of six regular bins and one large home bin for each player as shown below.



Player one's bins are labelled "1" and player two's bins are labelled "2".

Player 1 uses the Joystick Controller plugged into the first controller jack, and Player 2 uses the Joystick Controller in the second jack.

### CHOOSING THE NUMBER OF STONES

The regular bins each contain three stones to start. You may increase this number to eight by pressing the SELECT key repeatedly. More stones create a more difficult game.

When the computer plays against itself, the number of stones is chosen randomly.

### STARTING THE GAME

After you select the type of game and the number of stones you wish to play with, press the START key to allow player 1 to go first or press the OPTION key to allow player 2 to



## MAKING A MOVE

As the game begins, a blinking cursor moves onto the playing field. The second cursor appears after the first move is made.

Use your Joystick Controller to move your cursor from side to side over your regular bins. Press the red Joystick button to select one of your bins of stones. The cursor automatically picks up the stones in that bin and distributes them. You can move your cursor only when it is blinking, indicating that it's your turn.

You cannot position the cursor partway between your bins or too far to the right or left. A buzzer sounds if you try to move your cursor too far or if you select a bin with no stones in it.

## GAME RULES

On each turn, select one of the bins of stones. Then:

1. The cursor picks up all the stones in the selected bin and drops them, one by one in a counter-clockwise direction into all the regular bins (including those of your opponent) and into your home bin.
2. If the last stone dropped lands in your home bin, then you have another turn and your cursor continues to blink.
3. If the last stone dropped lands in one of your empty bins, then you "capture" all your opponent's stones in the bin immediately opposite. The cursor will automatically pick them up and put them in your home bin.

The game ends when the player whose turn it is has no stones left to move. The player with more stones, including those in the home bin and in the regular bins, is the winner. To simplify scoring, MANKALA automatically picks up all stones remaining in the regular bins at the end of the game and puts them into the appropriate home bin.

## COUNTING THE STONES

Part of the challenge of MANKALA is counting the number of stones in each bin, especially when there are more than just a few. When you play the game with real stones, the rules allow that a player may look at a pile of stones from any angle but may not touch them or move them to count.

In your computer version of MANKALA, the counting is easier because the stones appear in clumps of not more than 10 stones. Thus if you have 12 stones in a bin, they will appear as a clump of 10 and a clump of 2.

If you wait more than one minute before starting a new game, the computer begin playing



against itself.

## RESTARTING THE GAME

You can restart the game at any time by pressing the SYSTEM RESET key.

## HINTS

A good initial strategy is to move the stones nearest your home bin unless there's an obvious opportunity for a "capture". You can also pick up some good ideas by watching the computer play against itself. More sophisticated strategies include captures, and defensive stone-counting moves to avoid capture.



## QUICK REFERENCE SHEET

### BEFORE GAME BEGINS USE:

OPTION key	To choose the level of competition
START key	To begin the game
WAIT ONE MINUTE	To let the computer play against itself

### BEFORE ACTION BEGINS USE:

SELECT key	To select the number of stones for play.
START key	Player 1 has the first turn
OPTION key	Player 2 has the first turn

### DURING THE GAME USE:

Joystick Controller	To position blinking cursor over a bin
Red Joystick button	Completes a move

### ANYTIME USE:

SYSTEM RESET	Interrupt the game and begin again
--------------	------------------------------------

#### LIMITED WARRANTY ON MEDIA AND HARDWARE ACCESSORIES.

We, Atari, Inc., guarantee to you, the original retail purchaser, that the medium on which the APX program is recorded and any hardware accessories sold by APX are free from defects for thirty days from the date of purchase. Any applicable implied warranties, including warranties of merchantability and fitness for a particular purpose, are also limited to thirty days from the date of purchase. Some states don't allow limitations on a warranty's period, so this limitation might not apply to you. If you discover such a defect within the thirty-day period, call APX for a Return Authorization Number, and then return the product along with proof of purchase date to APX. We will repair or replace the product at our option.

You void this warranty if the APX product: (1) has been misused or shows signs of excessive wear; (2) has been damaged by use with non-ATARI products; or (3) has been serviced or modified by anyone other than an Authorized ATARI Service Center. Incidental and consequential damages are not covered by this warranty or by any implied warranty. Some states don't allow exclusion of incidental or consequential damages, so this exclusion might not apply to you.

#### DISCLAIMER OF WARRANTY AND LIABILITY ON COMPUTER PROGRAMS.

Most APX programs have been written by people not employed by Atari, Inc. The programs we select for APX offer something of value that we want to make available to ATARI Home Computer owners. To offer these programs to the widest number of people economically, we don't put APX products through rigorous testing. Therefore, APX products are sold "as is", and we do not guarantee them in any way. In particular, we make no warranty, express or implied, including warranties of merchantability and fitness for a particular purpose. We are not liable for any losses or damages of any kind that result from use of an APX product.



# ATARI PROGRAM EXCHANGE

## REVIEW FORM

We're interested in your experiences with APX programs and documentation, both favorable and unfavorable. Many software authors are willing and eager to improve their programs if they know what users want. And, of course, we want to know about any bugs that slipped by us, so that the software author can fix them. We also want to know whether our documentation is meeting your needs. You are our best source for suggesting improvements! Please help us by taking a moment to fill in this review sheet. Fold the sheet in thirds and seal it so that the address on the bottom of the back becomes the envelope front. Thank you for helping us!

1. Name and APX number of program \_\_\_\_\_

2. If you have problems using the program, please describe them here.

---

---

---

3. What do you especially like about this program?

---

---

---

4. What do you think the program's weaknesses are?

---

---

---

5. How can the catalog description be more accurate and/or comprehensive?

---

---

6. On a scale of 1 to 10, 1 being "poor" and 10 being "excellent", please rate the following aspects of this program?

- \_\_\_\_\_ Easy to use
- \_\_\_\_\_ User-oriented (e.g., menus, prompts, clear language)
- \_\_\_\_\_ Enjoyable
- \_\_\_\_\_ Self-instructive
- \_\_\_\_\_ Useful (non-game software)
- \_\_\_\_\_ Imaginative graphics and sound

7. Describe any technical errors you found in the user instructions (please give page numbers).

8. What did you especially like about the user instructions?

9. What revisions or additions would improve these instructions?

10. On a scale of 1 to 10, 1 representing "poor" and 10 representing "excellent", how would you rate the user instructions and why?

11. Other comments about the software or user instructions:

STAMP

ATARI Program Exchange  
Attn: Publications Dept.  
P.O. Box 50047  
60 E. Plumeria Drive  
San Jose, CA 95150

[seal here]